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post-injury C-terminus AChE-R esterase; post-traumatic Antisense oligonucleotide; acetylcholine es cholinergic neurotransmission; progressive myasthenia gravis; Eaton-Lambert disease; m amyotrophic lateral sclerosis; post-traumat multiple sclerosis; post-stroke sclerosis; product **5**6 peptide; entry) AChE splice (first standard; Alternatively 31-AUG-2001 AAG62388; AAG62388

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erase mRNA disorders targeted to acetylcholine esting progressive neuromuscular prevent isense oligonucleotide for treating or prevent antisense useful New

the but of in gene in Examples All Sequences AAH44810 - AAH44822 represent antisense oligonucleotides targeting the acetylcholine esterase (AChE) mRNA. AChE is involved termination of cholinergic neurotransmission, by hydrolysing the neurotransmitter acetylcholine. Mammalian AChE is encoded by one gealternative splicing at its 3' end yields three different mRNA transcripts which encode protein with distinct carboxyl termini. Althree proteins are catalytically active. AChE has morphogenic, noncatalytic capacities too. AChE antisense oligonucleotides are used treating or preventing a progressive neuromuscular disorder. Example

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damage dystonia; disorder; PTSD esterase; AChE; dystor /e neuromuscular disord muscular dystrophy; E hatic stress disorder; muscle lateral sclerosis; rerosis; perosis; post-stroke-innervation. ive excess

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2001-336003/35 WPI;

English 124pp; gravis Ξ, myasthenia Fig Disclosure; a B such

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Aag62388 Aab48914 Aab50032 Aaw98024 Aaw74588 Aaw68146 Aab50036 Abb31331 Aaw48797 Adc33366 Abb11475 Aar37744 Aar93255 Aar93255 Aar93257 Aar93256 Aar93256 Aar93256 Aar93256

AAB48914 AAB50032 AAU98024 AAW74588 AAW68146 AAB50036 AAB50036 AAB50036 AAB50036 AAB511475 AAB51865 AAB51865 AAB51865 AAB51865 AAB51865 AAB93255 AAR93257 AAR93257 AAR93257 AAR93257 AAR93256 AAR93256 AAR93256

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disorders which are treatable using the antisense oligonucleotides include myasthenia gravis, Eaton-Lambert disease, muscular dystrophy, amyotrophic lateral sclerosis, post-traumatic stress disorder (PTSD), multiple sclerosis, dystonia, post-stroke sclerosis, post-injury muscle damage, excessive re-innervation and post-exposure to AChE inhibitors. The present sequence represents the C-terminus of an alternatively spliced AChE gene product
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26 AA; Sequence

Length 2 Indels 147; DB 4; No. 1.4e-10; Mismatches 26 Score Pred. SPPGVTPLFSP ö 100.0%; 100.0%; Similarity 100 6; Conservative GMOGPAG 26; Query Match Best Local S Н Matches ठ පු

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16-MAR-2001

ID NO:1. SEQ C-terminal peptide, (AChE) acetylcholinesterase Human

nesterase; AChE; readthrough peptide; ARP; splice variant; ope; C-terminal peptide; antibody; central nervous system; psychological insult; physical insult; chemical insult; barrier disruption; elevated glucocorticoid level; disease; diagnosis. Acetylcholinesterase; human; epitope; C-tern blood-brain Alzheimer's stress; CNS

sapiens. Ношо

WO200073343-A2

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2000WO-IL000312 31-MAY-2000; 99IL-00130225 31-MAY-1999 DEV CO HEBREW UNIV JERUSALEM RES YISSUM (XISS)

Seidman Friedman A, Kaufer D, Ħ Soreq

2001-061514/07 WPI;

ರ entral nervous system stress, elevate blood-brain barrier and Alzheimer's C-terminal its or acetylcholinesterase diagnosing, ventral disruption of blood derivative useful for cglucocorticoid level

une invention relates to antibodies which recognise acetylcholinesterase (AChE) or a C-terminal peptide thereof (particularly AAB48914-B48916).

The AChE splice variant, AChE-R, and AChE-R mRNA, have been found to be elevated in response to central nervous system (CNS) insults. The invention therefore also relates to a method for diagnosing CNS stress; and also elevated glucocortricoid levels, disruption of the blood-brain cerebrospinal fluid) and an antibody of the invention. The CNS stress which may be diagnosed using the antibodies is preferably that caused by exposure to irradiation) or chemical insult (head injury, head trauma, or cerve gas). The present sequence represents a human AChE C-terminal peptide (termed AChE readthrough peptide (ARP) in the specification), which is specifically claimed as an epitope which is rorresponded.

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The present sequence is a C-terminal peptide of acetylcholinesterase (AChE). This peptide is acetylcholinesterase "readthrough" peptide (ARP-CAChE). This peptide has a cell growth and/or cell differentiation activity:

The peptide may be used in ex vivo or in vivo expansion of haematopoietic stem cells and neural progenitors, and in the promotion of megakaryocytic differentiation of hematopoietic stem cells. In addition, the present peptide may be used in for promoting expansion of committed neural progenitors in a developing embryo, in cultured embryonic stem cells, and progenitors in a developing embryo, in cultured embryonic stem cells, and cased in the treatment of thrombocytopenia, post-irradiation conditions, used in the treatment of thrombocytopenia, post-irradiation conditions, loss, in inducing synthesis of AChE mRNA, and in promoting formation of hematon bodies. Antibodies directed against the present peptide are useful for diagnosing stress-induced male infertility
                             ö
                                                                                                                                                                                                                                                                                         ARP-1; haemostatic; acetylcholinesterase; AChE; cell growth; human;
cell differentiation; thrombocytopenia; post-irradiation condition;
post-chemotherapy condition; blood loss; stress-induced male infertility
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sclerosis; Dystonia;

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The invention relates to a nucleic acid sequence coding for a singlechain variable fragment (scFv) antibody that has specific affinity for the synaptic variant of acetylcholinesterase (AChE-S), where the scFv antibody consists essentially of a polypeptide comprising the binding of are an expression vehicle comprising a nucleic acid sequence coding for a scFv antibody that has specific affinity for the synaptic variant of AChE-S and a method for the diagnosis of a progressive neuromuscular disorder in a mammal, comprising obtaining a sample from the mammal and detecting intensified expression of at least one of the AChE variants in the sample. The single-chain Fv antibody is useful for diagnosing a progressive neuromuscular disorder which involves any one of muscle distortion, muscle re-innervation and neuromuscular junction (NMJ) abnormalities. The disorder is Myasthenia gravis (preferred), Eaton-Lambert disease, muscular dystrophy, amyotrophic lateral sclerosis (ALS), post-tranmatic stress disorder (FTS), multiple sclerosis, Dystonia, post-stroke sclerosis, post-injury muscle damage, excessive re-innervation, or post-exposure to AChE inhibitors. The present sequence represents the unique region of human acetylcholinesterase encoded by a readthrough
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single-chain variable fragment (somet the synaptic variant of in for diagnosing a neuromuscular
                                                                                                                                                                              Human; acetylcholinesterase; single-chain variable fragment; scFv; AChE-S; heavy chain variable region; muscle re-innervation; progressive neuromuscular disorder; muscle distortion; readthrough; myasthenia gravis; neuromuscular junction abnormality; Eaton-Lambert disease; muscular dystrophy; amyotrophic lateral scle: ALS; post-traumatic stress disorder; PTSD; multiple sclerosis; Dystepost-stroke sclerosis; post-injury muscle damage; excessive re-innervation.
                                                                                                                                                readthrough acetylcholinesterase unique region.
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antibody that has specific affinity for
acetylcholinesterase (AChE-S), useful
disorder, e.g. Myasthenia gravis.
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is the amino acid sequence of a human acetyl-cholinesterase (AChE) ant used in the method of the invention, where inhibitors of AChE are to treat injury to the central nervous system (CNS). The AChE bitor can also be used to facilitate transplantation of neuronal s to the CNS of a patient. The inhibitor can also be used to improve ocampal neuron survival following injury to the CNS. The CNS injuries can be treated with the method include epilepsy, stroke,
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injury, pain, Parkinson's
ir disorders, neurological
s disease, and affective
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                                                                                                                             acetyl-cholinesterase;
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AChE;

acetylcholinesterase; human; myasthenia gravis;

resistant;

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Score 147; DB 5; Pred. No. 1.4e-10; Mismatches 0;

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Matches

pain,

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This represents the amino acid sequence of a human acetylcholinesterase

(AChE) splice variant. The invention provides sequences shown in AAV41278

to AAV41285 that represent synthetic nuclease resistant antisense

oligodeoxynucleotides which are capable of selectively modulating human

c acetylcholinesterase (AChE) production. These oligonucleotides are

targeted to a splice junction in a splice variant of AChE mRNA and are

c apable of selectively modulating human AChE production in the central

c method for determining the efficacy of these human AChE specific

antisense oligonucleotides. These antisense oligonucleotides can be used

to restore balanced cholinergic signalling in the brain, particularly

related to learning and memory as well as stress disorders, Parkinson's

and Alzheimer's disease. They can also be used to reduce production and

therefore deposition of AChE in the neuromuscular junctions of patients

with e.g. myasthenia gravis. The oligonucleotides work effectively at low

doses while avoiding many of the side effects associated with Tacrine and

related cholinergic drugs for Alzheimer's disease and pyridostigmine and
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cell differentiation; thrombocytopenia; post-irradiation condition;
post-chemotherapy condition; blood loss; stress-induced male infertility
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Alzheimer's disease; central on; cholinergic signalling; b
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Pred. No. 1.;
Mismatches
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KOHN K
 Parkinson's di
neuromuscular
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3-FEB-1997;
2-MAY-1997;
1-JUL-1997;
                                       Homo sapiens
                                                                 WO9826062-A2
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The present invention relates to C-terminal peptides of the acetylcholinesterase (AChE) (see AAB50032-B50034). The peptides of the present invention have cell growth and/or cell differentiation activity.

The peptides may be used in ex vivo or in vivo expansion of haematopoietic stem cells and neural progenitors, and in the promotion of megakaryocytic differentiation of hematopoietic stem cells. In addition, the peptides may be used in for promoting expansion of committed neural progenitors in a developing embryo, in cultured embryonic stem cells, and embryoid bodies derived from them. The peptides may further be used in chemotherapy conditions, and conditions following massive blood loss, in inducing synthesis of AChE mRNA, and in promoting formation of hematon bodies. Antibodies directed against the peptides are useful for chiagnosing stress-induced male infertility. The present sequence is a C-terminal AChE "readthrough" peptide (ARP-2)
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condition; blood loss;
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99IL-00131707
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Homo sapiens
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02-SEP-1999;
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The present invention relates to C-terminal peptides of acetylcholinesterase (AChE) (see AAB50032-B50034). The peptides of the present invention have cell growth and/or cell differentiation activity. The peptides may be used in ex vivo or in vivo expansion of haematopoietic stem cells and neural progenitors, and in the promotion of megakaryocytic differentiation of hematopoietic stem cells. In addition, the peptides may be used in for promoting expansion of committed neural progenitors in a developing embryo, in cultured embryonic stem cells, and embryoid bodies derived from them. The peptides may further be used in the treatment of thrombocytopenia, post-irradiation conditions, post-chemotherapy conditions, and conditions following massive blood loss, in inducing synthesis of AChE mRNA, and in promoting formation of hematon bodies. Antibodies directed against the peptides are useful for diagnosing stress-induced male infertility. The present sequence is a Cterminal AChE "readthrough" protein (ARP), which was used in a yeast two-dry bybrid system, to screen for ARP binding partners
                                                                                                                                                                 New regulatory peptides having cell growth and cell differentiation activity derived from the C-terminal region of acetylcholinesterase useful in promoting growth, survival and differentiation of stem cells
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-1999;
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ô Length 53 Indels ; DB 4; 2.8e-10; les 0; DB Mismatches Score 147; Pred. No. 26 GMOGPAGSGWEEGSGSPPGVTPLFSP GMQGPAGSGWEEGSGSPPGVTPLFSP .; 0 100.0%; 100.0%; Conservative Similarity 26; 28 Query Match Н Local Matches Best 6, **₽**

Gaps

standard; protein; GFP-fused AChE variant 05-NOV-2002 **ABG31331** ABG31331 RESULT ABG3133

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53

entry) (first

construct, pGARP related protein

expression

Nervous system; drug assay; acetylcholinesterase; AChE; brain; isoform variance; AChE blocker; muscarinic receptor; M1; M2; pyridostigmine; muscarinic receptor blocker; scopolamine; M1 receptor blocker; pirenzepine; anxiety; post-traumatic stress; Alzheimer's disease; muscle malfunctioning; neurodegenerative disorder; xenobiotic damage; panic; neuromuscular disorder; Parkinson's disease; Huntington's chorea; muscle fatigue; multiple chemical sensitivity; autism; multiple sclerosis; Sjogren's disease; GFP; pGARP; fluorescent protein

Unidentified

WO200240994-A2

23-MAY-2002

14-NOV-2001;

2001WO-IL001051

2000US-0247970P 14-NOV-2000;

CO HEBREW UNIV JERUSALEM. DEV YISSUM RES _ (YISS

The present invention relates to a method and system for evaluating an effect on the nervous system of a test drug. The method comprises comparing the effect of the drug on acetylcholinesterase (AChE) catalytic activity or isoform variance in a brain of a test animal following a challenge by an AChE blocker or a blocker of AChE and muscarinic receptors M1 and M2 (e.g. pyridostigmine) and comparing this effect with that of a known agent, preferably a non-selective muscarinic receptor. C blocker (e.g. scopolamine) or a specific M1 receptor blocker (e.g. pirenzepine). The method is useful for evaluating an effect on the nervous system of a test drug, including drugs for the treatment of anxiety conditions, post-traumatic stress, Alzheimer's disease, muscle anxiety conditions, post-traumatic stress, damage resulting from exposure to xenobiotics, panic, neuromuscular disorders, Parkinson's disease, Huntington's chorea, muscle fatigue, multiple chemical chemical construct processent sequence represents a protein described in relation to green fluorescent protein (GFP)-fused AChE variant expression construct pGARP in the examples of the present invention comparing effect of drug of test animal following control group. Gaps ö 53; Indels Length Score 147; DB 5; Pred. No. 2.8e-10; Mismatches 0; nervous system by activity in brain comparing it with Ø Shoham 26 GMOGPAGSGWEEGSGSPPGVTPLFSP GMOGPAGSGWEEGSGSPPGVTPLFSP English ធ ; 0 Evaluating effect of drugs on on acetylcholinesterase, AChE challenge by AChE blocker and Sklan Similarity 100.0%; 6; Conservative (114pp; Meshorer E, 2002-490152/52 52; Page 26; Example; Soreq H, Sequence 28 Match Query Ma. WPI; Best Loc Matches 200 8

standard; protein; AAW48797; AAW48797 RESULT 10 197 **AAW487**

600 AA

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entry) (first 07-OCT-1998 XF

variant readthrough splice esterase-14 Human acetylcholine

AChE-14; CN our; glioma; blood/brain barrier; BBB; I4 peptide; antibiotic; brain tumour; chemotherapeutic drug; central nervous system

Homo sapiens

AChE; t exons 1-4 4 of Aunder by intron inventors "This region is encoded by sequence is claimed by the inspecification" Location/Qualifiers 'note= Region Region κeγ

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AChE"

WO9822132-A2

28-MAY-1998

97WO-US021696. 20-NOV-1997; .rag

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The present sequence represents human acetylcholine esterase-I4 (AChE-Ireadthrough splice variant. The protein sequence comprises residues encoded by exons 1-4 of human AChE followed by residues encoded by introfa, while the last residue of the protein is encoded by exon 5 of AChE. The invention provides a pharmaceutical composition, for facilitating passage of compounds through the blood/brain barrier (BBB), comprising acceptable carrier. The pharmaceutical composition is claimed to facilitate a reversible disruption of the BBB allowing transport of accimpounds through the BBB. The compounds, e.g. imaging agents, antibiotics or chemotherapeutic drugs, are claimed to be useful for the diagnosis and treatment of diseases or disorders of the CNS such as infections, neurochemical disorders, brain tumours, gliomas, etc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;; thrombolytic; vulnerary; antiinflammatory; cytostatic
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Pred. No. 3.2e-09
Mismatches 0
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larity 100.0%;
Conservative
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Gaps

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the novel human cubas. The invention additionally encompasses expression vectors and host cells comprising a nucleic acid of the invention; the recombinant production of a polypeptide of the invention; an antibody against a polypeptide of the invention; and methods of invention in the compound which binds to a polypeptide of the invention. The invention further discloses methods of peventing, treating or and/or monoclonal antibodies for carrying out the methods of the invention. The invention further discloses methods of peventing, treating or and/or monoclonal antibodies for carrying out the methods of the invention. Invention, methods for the identification of compounds that modulate the expression or activity of the polymucleotide and/or polypeptide, and 767 contig sequences corresponding to the cDNA sequences of the invention (ADC31361-ADC3227) and the polypeptides encoded by the contigs (ADC322628 contigs sequences corresponding to the cDNA sequences of the invention are useful in diagnostics, drug screening, forensics, gene mapping, in the identification of mutations responsible for genetic disorders or other traits, for assessing biodiversity, and in producting many other types of data and products dependent on DNA and amino acid sequences. They are also used for treating diseases such as Parkinson's disease, Alzheimer's disorders, wounds, burns, ulcers, osteoporosis, autoimmune diseases or cancer. The nucleic acids may also be used as hybridisation probes or primers, and in the recombinant production of a protein. The polypeptides are also useful in generating antibodies, as molecular weight markers, and an an effold supplements. The present sequence of the invention. Note:
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                                                                                                                                                                                                                                                                              for diagnosing, preventing or ive diseases, anemias, platelicosis, autoimmune diseases or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and as food supplements. The present sequence represents a human cont encoded polypeptide sequence used in an example of the invention. Not the sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WI at ftp.wipo.int/pub/published_pct_sequences.
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                                                                                   2003-371981/35
B; ADC32599.
      <del>ن</del>
                 Ghosh M,
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                                znou r, Gnosn M
Haley-Vicente D,
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                                                                                                    N-PSDB;
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                         Д
                                                                                                                                                                                                           cancer
                         Zhou
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by intro

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Gaps .. 0 Length 145 Indels .. 8 ... DB 7 Mismatches 63; S Score Pred. ٠. ن Similarity 54.2%; 3; Conservative 13; Query Match Best Local S Matches 13

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94 Z GPAGSGWEEGSGSPPGVTPLFSP || |: :||||||| : | | GDRGTEGKEGSGSPPGPTAGWMP 575 standard; peptide; 71 ABB11475 ന RESULT 12 ABB11475 d S

ABB11475;

Human; cytokine; cell proliferation; cell differentiation; growth f haematopoiesis regulation; tissue growth; immunomodulator; activin; inhibin; chemotaxis; chemokinesis; thrombolysis; oncogenesis; proliferation; metastasis; cancer; tumour; haematopoietic disorder; myeloid cell disorder; lymphoid cell disorder; asthma; arthritis; ID NO:1845. SEQ entry) 3 homologue, (first Human R31449 11-JAN-2002

antibacterial; chronic inflammatory condition; proliferative retinopathy; atherosclerosis; coronary heart disease; arterial ischaemia; bone disorder; coronary heart disease; arterial ischaemia; tissue regeneration; wound healing; infection; immune disorder; cell culture; drug screening; gene therapy; antiinflammatory; antiasthmatic; antiarthritic; haemostatic; antiarteriosclerotic; cytostatic; osteopathic; vasotropic; cardiant; virucide; antibac antifungal; vulnerary; antiulcer.

sapiens Homo

WO200157188-A2

09-AUG-2001

2001WO-US003800 05-FEB-2001; 2000US-00496914 2000US-00560875 03-FEB-2000; 27-APR-2000;

INC HYSEO (HXSE-)

RT Drmanac ບັ Liu Tang YT,

-457740/49 ABA0871 2001 N-PSDB;

arthritie preventing, Ф О mammalian subject for encoding sequences useful medical DNA and ø an proteins a cancer Нишап and OH

1963pp; English. 197; Page 20; aim

Sequences ABB10981-ABB12330 represent 1350 novel human polypeptides, and sequences ABA08225-ABA09574 represent nucleic acids encoding them. The invention also relates to vectors and recombinant host cells comprising a nucleotide of the invention, methods of producing the novel polypeptides, or polypeptides against the polypeptides of the invention. Although novel, many of the nucleotides or polypeptides of the invention. Although novel, many of the polypeptides of the invention have homology to known proteins, thereby giving an insight into their probable biological activities, and hence giving an insight into their probable biological activities, and hence giving an insight into their probable biological activities, and hence chemotactic or chemotactic activities, including cytckine, cell proliferation or cell differentiation activities, including cytckine, cell proliferation or cell faematopoiesis regelatory activity; issue growth activity; hadmadoulatory activity; activities; haemostatic, thrombotic or chemotactic or chemokinetic activities; haemostatic, thrombotic or chemokinetic activities; homostatic, thrombotic or thrombolytic activities; receptor or ligand activities; or matastasis; chrombolytic activities; prolypeptides and nucleotides of the invention are useful for preventing, treating or ameliotating medical conditions, e.g., by protein or gene therapy. Such conditions include disorders (e.g., waptoning or their bolypeptides incompact, conditions, e.g., by protein or gene therapy. Such conditions included disorders (e.g., waptoning or luminatory activities may be used to promote wound repair (or nucleic acids encoding them) may be used to promote wound repair (or nucleic acids encoding them) may be used to promote wound immunomodulatory activities may be used in the treatment of viral, bacterial and fungal infections in addition to immunomodulatory activities may be used in the immunomodulatory activities may be used in the immunomodulatory activities may be used to promote wound maining (e.g., of b nucleotides drug human manipulate stem cells in culture to give rise to neuroepithelial that can be used to augment or replace cells damaged by illness, autoimmune disease or accidental damage. The polypeptides and nucmay also be used in the diagnosis of the above conditions, and ir novel sequence represents a s. The present invention techniques: The the of polypeptide eening

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D
Score 61.5; D
Pred. No. 53;
2; Mismatches
                                          443
                                    GVTP
              ?
41.8%;
ilarity 56.5%;
Conservative
                           GWEEGSGSP
                                                                            protein;
                                                                            standard;
                            PAGS
       Similarity
             13;
Query Match
Best Local S
Matches 13
                                         421
                                                                            AAB51865
                            4
                                                               RESULT
                                                                      AAB51
                                        원
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AAB51865;

Human; secreted protein; immunosuppressive; antiarthritic; antirheumatiantiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; opthalmalogical; vulnerary; autoimmune disease; rheumatoid arthritis; disorder; Ωī SEQ 39 gene secreted protein sequence encoded by entry) (first 16-FEB-2001 Human DXX

sapiens. Homo

WO200061626-A1

19-OCT-2000

2000WO-US009066. 06-APR-2000;

99US-0128698P 2000US-0176926P 09-APR-1999; 20-JAN-2000;

INC SCI GENOME (HUMA-) HUMAN (ROSE/) ROSEN Komatsoulis SX, Ruben Rosen

<u>;</u>

WPI; 2000-619227/59 N-PSDB; AAC93517.

for for sed human secreted proteins medical conditions and v s encoding 49 ameliorating or preservatives acid molecules preventing or diagnosing, pre food additives nucleic

516pp; English. 478; 11; Page Claim

Polynucleotide sequences AAC93479 - AAC93527 represent cDNA encoding
thuman secreted proteins AAB51827 - AAB51875. Sequences AAB51876 AAB51927 represent alternative polypeptides encoded by the genes, and
amino acid sequences with which they share homology. The genes and
continuous have activities dependent on the tissues and cells in which they
are expressed. Examples of their activities include immunosupressive;
antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant;
antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant;
antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant;
controle; fungicide; opthalmalogical; and vulnerary. The secreted
controle; proventing and/or diagnosing diseases and disorders such as
autoimmune diseases e.g. rheumatoid arthritis, hyperproliferative
cautoimmune diseases e.g. rheumatoid arthritis, hyperproliferative
cardiac arrest, cerebrovascular disorders e.g. cerebral ischaemia,
angiogenesis, nervous system disorders e.g. Alzheimer's disease,
infections caused by bacteria, viruses and fungi and coular disorders
ce.g. corneal infection. The polypeptides can also be used to aid wound
healing and epithelial cell proliferation, to prevent skin aging due to
sunburn, to maintain organs before transplantation, for supporting cell
culture of primary tissues, to regenerate tissues and in chemotaxis. The

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increase or decrease storage capabilities, fat content, lipid, proteir carbohydrate, vitamins, minerals, cofactors and other nutritional components. Oligonucleotides AAC93470 - AAC93478 and peptide AAB51826 used in the isolation and characterisation of the proteins and polynucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                            membrane;
                                                                                                                                                                                                                                                                                                                                                                                        Recombinant; collagen-like polymer; CLP; tripeptide; helix; membrane fibre; film; coating; triad sequence; collagen; mammalian; moulding; hydrogel; interchain linkage; colloid suspension; DCP; antibody.
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Pred. No.
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                                                                                                                                                                      PAGSGWEEGSGSPPGVTPLFSP
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                                                                                                               41.5%;
ilarity 59.1%;
Conservative
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B; AAQ43035.
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07-SEP-1993
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N-PSDB;
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triad motif; recombinant production; photographic; fibre.
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Pred. No. 7.3;
0; Mismatches
                                                                                         Collagen-like polymer sequence D4/D5 unit
                                                                                                                                                                                                  TECHNOLOGIES INC.
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91US-00791960.
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GMOGPAGSGWEEGSGSPPG
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ilarity 57.9%;
Conservative
          GAQGPAGPGGSRGDPGPPG
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                                             AAR93255 standard; protein;
                                                                                                                                                                                                   PROTEIN POLYMER
                                                                      (revised)
(first en
                                                                                                                                                                                                                                                                           23-24;
                                                                                                      ; repetitive structural;
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11; Conserv
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12-NOV-1991;
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24-FEB-1997
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                                                                                                                          Synthetic.
                                                                                                       collagen; medical; s
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Search completed: October

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Length

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ore 60; DB 2 ed. No. 7.3; Mismatches

Score Pred.

th similarity 57.9%; 11; Conservative

Query Match Best Local S Matches 11

6

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Job time : 74 secs

Page

15.1.6	Compugen Ltd.
GenCore version	(c) 1993 - 2005
	Copyright (

using sw model protein search, OM protein

; Search time 16 Seconds (without alignments) 156.352 Million cell updates/sec 00:54:48 2005, 29, October Run on:

GMQGPAGSGWEEGSGSPPGVTPLFSP US-09-980-263-1 147 1 GMQGPAGSGWEEGS score: Sequence: Title: Perfect

26

BLOSUM62 Gapop 10.0 Scoring table:

96216763 283416 segs, Searched

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1 0 % 1 100 % 45 summaries Minimum Match Maximum Match Listing first

PIR Database

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No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, derived by analysis of the total score distribution. Pred. N score g and is

SUMMARIES

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30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

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PID:dl
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                                                                                                                                      Tachikawa,
                                                                                            09-Jul-2004
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RESULT 1
JC5980
ficolin-A precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 06-May-1998 #sequence_revision 29-May-1998 #text_change 09-JU
C;Date: 06-May-1998 #sequence_revision 29-May-1998 #text_change 09-JU
C;Accession: JC5980
R;Fujimori, Y.; Harumiya, S.; Fukumoto, Y.; Miura, Y.; Yagasaki, K.;
Biochem. Biophys. Res. Commun. 244, 796-800, 1998
A;Title: Molecular cloning and characterization of mouse ficolin-A.
A;Reference number: JC5980; MUID: 98205801; PMID: 9535745
A;Accession: JC5980
A;Molecule type: mRNA
A;Residues: 1-334 <FUJ>
A;Residues: 1-334 <FUJ>
A;Cross-references: UNIPROT: O70165; DDBJ: AB007813; NID: 92957011; PID: A;Experimental source: liver
C;Comment: This protein consists of both collagen- and fibrinogen- 1
F;1-21/Domain: signal sequence #status predicted <COL>
F;123-334/Domain: fibrinogen beta/gamma homology <FBG>
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Cubous Collagen alpha 1(III) chain - bovine C; Species: Bos primigenius taurus (cattle) C; Species: Bos primigenius taurus (cattle) C; Date: 04-Dec-1986 #sequence_revision 04-Dec-1986 #text_change 09-Jul-; C; Date: 04-Dec-1986 #sequence_revision 04-Dec-1986 #text_change 09-Jul-; C; Accession: A02862; A38001; A38002; A38004; A38004; A38005; S71946 R; Fietzek, P.P.; Allmann, H.; Rauterberg, J.; Henkel, W.; Wachter, E.; R; Fietzek, P.P.; Allmann, H.; Rauterberg, J.; Henkel, W.; Wachter, E.; A; Title: The covalent structure of calf skin type III collagen. I. The A; Residues: 1-242 <FIE> A; Cross-references: UNIPROT:P04258 A; Cross-references: UNIPROT:P04258 R; Dewes, H.; Fietzek, P.P.; Kuehn, K. Hoppe-Seyler's Z. Physiol. Chem. 360, 821-832, 1979 A; Reference number: A38001; MUID:80026027; PMID:488907 A; Residues: 243-422 <DEWI> R; Bentz, H.; Fietzek, P.P.; Kuehn, K. Hoppe-Seyler's Z. Physiol. Chem. 360, 833-840, 1979

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-Jul-2004

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e glycoprotein MSG100
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  A; Molecule type: DNA
A; Residues: 1-72 < KAR>
A; Cross-references: GB:S71129; NID:g545224; PIDN:AAC60618.1; F
R; Li, Y.; Camp, S.; Rachinsky, T.L.; Getman, D.; Taylor, P.
J. Biol. Chem. 266, 23083-23090, 1991
A; Title: Gene structure of mammalian acetylcholinesterase. Alt
A; Title: Gene structure of mammalian acetylcholinesterase. Alt
A; Reference number: A41573; MUID:92078174; PMID:1744105
A; Accession: A41573
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 30-46, 'R', 48-72 < LIY>
A; Residues: 30-46, 'R', 48-72 < LIY>
A; Cross-references: GB:M76539; NID:g177976; PID:g553165
C; Genetics:
A; Genetics:
A; Genetics:
C; Genetics: A; Cross-references: GDB:118746; OMIM:100740
A; Map position: 7q22-7q22
C; Keywords: alternative splicing; carboxylic ester hydrolase
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C; Species: Pneumocystis carinii
C; Date: 28-Aug-1985 #sequence_revision 07-Oct-1994 #te
C; Accession: JC2217
R; Kitada, K.; Wada, M.; Nakamura, Y.
DNA Res. 1, 57-66, 1994
A; Title: Multi-gene family of major surface glycoprote
A; Reference number: JC2217; MUID: 96051981; PMID: 758402
A; Accession: JC2217
A; Molecule type: mRNA
A; Residues: 1-1076 < KIT>
C; Superfamily: Pneumocystis carinii major surface cl; Keywords: glycoprotein
F; 245, 471 c.,
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A; Title: The covares...
A; Reference number: A38002; MUID: BUULCOLL...
A; Accession: A38002
A; Accession: A38002
A; Molecule type: protein
A; Residues: 423-571 <BEN>
R; Lang, H.; Glanville, R.W.; Fietzek, P.P.; Kuehn, K.
R; Lang, H.; Glanville, R.W.; Fietzek, P.P.; Kuehn, K.
Hoppe-Seyler's Z. Physiol. Chem. 360, 841-850, 1979
A; Title: The covalent structure of calf skin type III coll
A; Title: The covalent structure of calf skin type III coll
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C; Date: 02-Jul-1996 #sequence_revision 02-Jul
C; Accession: I53411; A41573
R; Karpel, R.; Ben Aziz-Aloya, R.; Sternfeld, I
Exp. Cell Res. 210, 268-277, 1994
A; Title: Expression of three alternative acet
A; Reference number: I53411; MUID:94131004; PM
A; Accession: I53411
A; Status: preliminary; translated from GB/EMB
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R; Palmer, S.
submitted to the EMBL Data Library, A; Reference number: Z19080
A; Accession: T19143
A; Reference number: Z19080
A; Accession: T19143
A; Reference number: Z19080
A; Residues: 1-317 < WIL>
A; Residues: 1-317 < WIL>
A; Experimental source: clone C09G5
C; Genetics:
A; Gene: CESP: C09G5.5
A; Map position: Z
A; Introns: 46/3
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140/3; 976/3
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C;Species: Gallus gallus (chicken)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
C;Accession: S28791
R;Nah, H.D.; Barembaum, M.; Upholt, W.B.
J. Biol. Chem. 267, 22581-22586, 1992
A;Title: The chicken alpha1(XI) collagen gene is widely expressed in embryonic tis A;Reference number: S28791; MUID:93054557; PMID:1429607
A;Accession: S28791
A;Accession: S28791
A;Kestus: preliminary
A;Molecule type: mRNA
A;Residues: 1-888 <NAH>
A;Residues: 1-888 <NAH>
E;Gcss-references: UNIPROT:Q90796; EMBL:M88593; NID:g211619; PIDN:AAA48707.1; PID
C;Superfamily: collagen alpha 1(V) chain; fibrillar collagen carboxyl-terminal homelogy <PCC>
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S59856

collagen alpha 1(III) chain precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 10-Apr-1996 #sequence revision 19-Apr-1996 #text_change
C;Accession: 55986; S62120; S16373
R;Toman, P.D.; de Crombrugghe, B.
Gene 147, 161-168, 1994
A;Title: The mouse type-III procollagen-encoding gene: genomic
A;Reference number: S59856; MUD:95011609; PMID:7926795
A;Accession: S59856
A;Molecule type: DNA
A;Residues: 1-1464 <TOM>
A;Cross-references: UNIPROT:P08121; EMBL:X52046
A;Cross-references: UNIPROT:P08121; EMBL:X52046
A;Cross-references: UNIPROT:P08121; EMBL:X52046
A;Accession: S62120
A;Accession: S62120
A;Molecule type: DNA
A;Residues: 1-866, (C, 868-1464 <TOA>
A;Cross-references: EMBL:X52046; NID:9575321; PIDN:CAA36279.1;
B;Metsaeranta, M; Toman, D; de Crombrugghe, B; Vuorio, E.
Biochim. Biophys: Acta 1089; 241-243; 1991
A;Title: Specific hybridization probes for mouse type I, II, II
A;Reference number: S16176; MUD:91274355; PMID:2054384
A;Accession: S16373
A;Ectus: preliminary
A;Molecule type: DNA
A;Residues: 1442-1444 <MET>
A;Cross-reference unuper: SMA
A;Residues: Preliminary
A;Molecule type: DNA
A;Residues: Preliminary
A;Residues: PMA
A;Residue
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A; Map position:
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F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-154/Domain: propeptide #status predicted <PRO>
F;32-92/Domain: von Willebrand factor type C repeat homology <VWC;
F;155-1464/Product: collagen alpha 1(III) chain #status predicted
F;1236-1464/Domain: fibrillar collagen carboxyl-terminal homology
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C; Species: Homo sapiens (man)
C; Date: 03-Nov-1995 #sequence_revision 03-Nov-C; Accession: A57131
R; Muragaki, Y: Jacenko, O.; Apte, S.; Mattei, J. Biol. Chem. 266, 7721-7727, 1991
A; Title: The alpha2(VIII) collagen gene. A nov A; Reference number: A57131; MUID:91210292; PMI A; Accession: A57131
A; Accession: A57131
A; Residues: 1-635 < MUR>
A; Residues: 1-635 < MUR>
A; Cross-references: UNIPROT:P25067; GB:M60832; C; Genetics:
A; Gene: GDB:COL8A2
A; Cross-references: GDB:127812; OMIM:120252
A; Map position: 1p34.3-1p32.3
C; Superfamily: collagen alpha 1(VIII) chain; C; Superfamily: collagen alpha 1(VIII) chain; C; Superfamily: collagen alpha 1(VIII) chain; C; Superfamily: collagen alpha 1(VIII) F; Superfamily: collagen alpha 1(VIII) chain; C; Superfamily: collagen alpha 1(VIII) chain; F; 508-633/Domain: complement Clq carboxyl-terminal nonhelical
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A; Accession: S09174
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 623-742, 'A', 744-764, 'X', 766-827, 'A', 829-830, 'P', 832-836, 'P', A; Residues: 623-742, 'A', 744-764, 'X', 766-827, 'A', 829-830, 'P', 832-836, 'P', A; Residues: 623-742, 'A', 744-764, 'X', 766-827, 'A', 829-830, 'P', 832-836, 'P', A; Cross-references: GB: J00115; GB: V00503; NID: G30123; PIDN: CAA23761.1; A; Experimental source: skin fibroblast cells
R; Forlino, A.; Zolezzi, F.; Valli, M.; Pignatti, P.F.; Cetta, G.; Brunel Hum. Mol. Genet. 3, 2201-2206, 1994
A; Title: Severe (type III) osteogenesis imperfecta due to glycine substi
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pecies: Homo sapiens (man)
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C; Species: Caenorhabditis elegans
C; Species: Caenorhabditis elegans
C; Species: Caenorhabditis elegans
C; Date: 31-Mar-1990 #sequence_revision 31-Mar-1990 #text_chang
C; Accession: JS0168
R; Cox, G.N.; Fields, C.; Kramer, J.M.; Rosenzweig, B.; Hirsh,
Gene 76, 331-344, 1989
A; Title: Sequence comparisons of developmentally regulated col
A; Reference number: A91602; MUID:89326131; PMID:2753356
A; Accession: JS0168
A; Molecule type: DNA
A; Residues: 1-282 < COX>
A; Cross-references: UNIPROT:P18833; GB:M25479; NID:g156267; PI
A; Note: the authors translated the codon ACG for residue 43 as C; Comment: col-8, col-7 and col-19 belong to the same group of C; Genetics:
A; Gene: col-8
A; Map position: III
A; Introns: 133/1; 259/3
F; 95-124/Domain: helical < HX1>
F; 141-269/Domain: helical < HX2>
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                                                                                                                                                                                                                           B.; Hirsh,
                                                                                                                                                                                                                                                                                                                                               Residues: 1-282 <COX>
Cross-references: UNIPROT:P18833; GB:M25479; NID:g156267;
Note: the authors translated the codon ACG for residue 43
Comment: col-8, col-7 and col-19 belong to the same group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
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T18594
hypothetical protein AC3.6 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_C;Accession: T18594
R;McMurray, A.
Submitted to the EMBL Data Library, April 1996
A;Reference number: Z18995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #text_
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T16036
cuticle collagen col-8 - Caenorhabditis elegans
C; Species: Caenorhabditis elegans
C; Species: Caenorhabditis elegans
C; Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #te
C; Accession: T16036
R; Menezes, S.
submitted to the EMBL Data Library, November 1995
R; Menezes, S.
submitted to the sequence of C. elegans cosmid F11H0
A; Reference number: Z18450
A; Reference number: Z18450
A; Residues: DNA
A; Residues: 1-282 < MEN>
A; Residues: 1-282 < MEN>
A; Cross-references: UNIPROT: P18833; EMBL: U40187; NID: C; Genetics:
A; Genetics:
A; Genetics:
A; Introns: 133/1; 259/3
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Pred. No. 12;
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Pred. No.
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Matches 10; Conservative
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A.Reference number: 154365, WIDD:95187161, PMID:7881420
A.Reference number: 154365, WIDD:95187161, PMID:7881420
A.Rocession: 16662.
A.Rocession: 1
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Pred. No. 46;
1: Mismatches
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Similarity 42.3%;
11; Conservative
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C.Date: 13-701-1900 Hascurence_revision 28-Oct-1994 #text_change 09-Jul-2004
C.Date: 13-Jul-1900 Hascurence_revision 28-Oct-1997
A.Mocression: B34433
A.Mocression: B34433
A.Mocres reference maker: RANA
A.Mocres reference maker: 12-Oct-1997
A.Mocres reference maker: 12-Oct-1997
A.Mocres and A.Mocres: 12-Oct-1997
A.Mocres and A.Mocres: S21861
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A.Mocression: S21864
A.Mocression: S21864
A.Mocression: S21864
A.Mocression: A23360, MUDD:88115376; PMUD:3339014
A.Mocression: A23360
A.Mocression: A23360, MUDD:88115376; PMUD:3339014
A.Mocression: A23360
A.Mocression: A2336
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Mismatches
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Pred. No.
       A; Accession: T18594
A; Status: preliminary; translated from A; Molecule type: DNA
A; Residues: 1-325 <WIL>
A; Cross-references: UNIPROT:Q17402; ENA; Experimental source: clone AC3
C; Genetics:
A; Gene: CESP:AC3.6
A; Map position: 5
A; Introns: 47/3; 101/1; 270/3
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C; Keywords: alternative splicing; cartilage; coiled coil; extracel
C; Keywords: alternative splicing; cartilage; coiled coil; extracel
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-920/Product: collagen alpha 1(IX) chain #status predicted <NC4>
F;24-266/Domain: non-collagenous NC4 #status predicted <NC3>
F;267-403/Domain: collagenous COL3 #status predicted <COL2>
F;416-754/Domain: collagenous COL2 #status predicted <COL2>
F;755-784/Domain: non-collagenous COL1 #status predicted <COL1>
F;785-899/Domain: non-collagenous NC1 #status predicted <NC1>
F;900-920/Domain: non-collagenous NC1 #status predicted <NC1>
F;269,271,787,790,793,795/Modified site: hydroxyproline (Pro) #sta
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C; Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change C; Accession: A54328,
R; Phillips, C.L.; Morgan, A.L.; Lever, L.W.; Wenstrup, R.J. Genomics 13, 1345-13346, 1939
A; Title: Sequence analysis of a full-length cDNA for the murine A; Reference number: A43291; MUID:92372043; PMID:1505972
A; Accession: A43291
A; Residues: 1-1373 < PHI>A; Cross-references: UNIPROT: Q01149; GB:X58251; NID:950488; PIDN: A; Cross-references: UNIPROT: Q01149; GB:X58251; NID:950488; PIDN: A; Note: sequence extracted from NCBI backbone (NCBIP:112027)
R; Phillips, C.L.; Lever, L.W.; Pinnell, S.R.; Quarles, L.D.; Wen J. Invest. Dermatol. 97, 980-984, 1991
A; Title: Construction of a full-length murine Proalpha2(I) colla A; Reference number: A54328; MUID:92084969; PMID:1748823
A; Accession: A54328; MUID:92084969; PMID:1748823
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Barnay S., Blanchin S., Beckerich J.M., Beyne E., Bleykasten C.,
Boisrame A., Boyer J., Cattolico L., Confanioleri F., de Daruvar A.,
Hantraye F., Hennequin C., Jauniaux N., Joyet P., Kachouri R.,
Kerrest A., Koszul R., Lemaire M., Lesur I., Ma L., Muller H.,
Nicaud J.M., Nikolski M., Oztas S., Ozier-Kalogeropoulos O.,
Pellenz S., Potier S., Richard G.F., Straub M.L., Suleau A.,
Swennene D., Tekaia F., Wesolowski-Louvel M., Westhof E., Wirth B.,
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
NCBI_TaxID=8022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes
Saccharomycetales; Saccharomycetaceae; Debaryomyces.
NCBI_TaxID=284592;
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                                                                                                                                                                                                                                                                                                                         structural constituent;
IEA.
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                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINE=21257802; PubMed=11358497;
Saito M., Takenouchi Y., Kunisaki N., Kimura S.;
"Complete primary structure of rainbow trout type I colconsisting of al(I)a2(I)a3(I) heterotrimers.";
Eur. J. Biochem. 268:2817-2827(2001).
EMBL; AB052835; BAB55661.1; -.
GO; GO:0005581; C:collagen; IEA.
GO; GO:0005737; C:cytoplasm; IEA.
GO; GO:0005201; F:extracellular matrix structural const GO; GO:0006817; P:phosphate transport; IEA.
Pfam; PF01410; COLFI; 1.
Pfam; PF01391; Collagen; 18.
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Last annotation update)
    annotation update)
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Pred. No.:
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    Last
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78; Fib_collagen_C; COLFI; 1.
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Q6BP25;
Q6BP25;
25-OCT-2004 (TrEMBLrel. 28, Cr
25-OCT-2004 (TrEMBLrel. 28, La
25-OCT-2004 (TrEMBLrel. 28, La
Similarity.
ORFNames=DEHAOE17853g;
Debaryomyces hansenii CBS767.
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ilarity 46.2%;
Conservative
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SMART; SM00214; VWC; 1.
PROSITE; PS01208; VWFC_1
PROSITE; PS50184; VWFC_2
Collagen.
SEQUENCE 1449 AA; 137
    (TrEMBLrel.
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Local Similarity
thes 12; Conserv
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01-MAR-2004 (
Collagen al(I
Name=COL1Al;
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Okazaki N., Kikuno R., Ohara R., Inamoto S., Koseki H., Hiraoka S., Okazaki N., Kikuno R., Ohara R., Inamoto S., Koseki H., Hiraoka S., Saga Y., Kitamura H., Nakagawa T., Nagase T., Ohara O., Koga H.;
The Complete Nucleotide Sequences of Mouse Homologues of FLJ Genes:
The Complete Nucleotide Sequences of 110 Mouse FLJ-Homologous cDNAs
Identified by Screening of Terminal Sequences of cDNA Clones Randomly
Sampled from Size-Fractionated Libraries.";
DNA Res. 11:167-180(2004).

EMBL; AK131153; BAD21403.1; -.
GO; GO:0006817; P:phosphate transport; IEA.
RO; GO:0006817; P:phosphate transport; IEA.
RICEPPRO; IPR008160; Collagen.
RICEPPRO; IPR008983; TNF_like.
REAM; PF00386; Clq; 1.
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Sciurognathi; Muridae;
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                      the EMBL/GenBank/DDBJ
Genoscope;
Submitted (JUL-2004) to the EMBL/GenBank/DDBL
EMBL; CR382137; CAG88303.1; -.
GO; GO:0006817; P:phosphate transport; IEA.
InterPro; IPR008161; Clg helix.
InterPro; IPR008160; Collagen.
Pfam; PF01391; Collagen; 3.
ProDom; PD000007; Clg_helix; 1.
Collagen.
SEQUENCE 234 AA; 22636 MW; 3C0B851B5D0095
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ed. No. 16;
Mismatches
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Pred. No. 45;
1; Mismatches
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45;
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PF01391; Collagen; 8.
3; PR00007; COMPLEMNTC1Q.
: SM00110; C1Q; 1.
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05-JUL-2004 (TrEMBLrel. 27, Le
MFLJ00201 protein (Fragment).
Name=mFLJ00201;
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Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
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ilarity 60.0%;
Conservative
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TaxID=10090;
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Pfam; PF01391;
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Best Local S
Matches 12
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STRAIN=C57BL/6; TISSUE=Brain;

STRAIN=C57BL/6; TISSUE=Brain;

A Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

A Rosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Richards S., Worley K.C., Hale S., Garcia A.M., Gylbbs R.A.,

A Villalon D.K., Muzny D.M., Sodergren E.J., Lu K., Glbbs R.A.,

A Villalon D.K., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Rakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.

A Jones S.J., Marra M.A.;

A Jones S.J., Marra M.A.;

A Jones S.J., Marra M.A.;

And mouse CDNA sequences.";
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S.J.,
B.,
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                                                                                               sureleostomi;
Murinae; Mus
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleosto
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 643;
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                                                                                            Craniata; Vertebrata; E
Sciurognathi; Muridae;
                                          Last sequence update)
Last annotation update)
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Pred. No. 46;
1; Mismatches
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Mammalia; Eutheria; Rodentia
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ilarity 60.0%;
Conservative
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Director MGC Project;
Submitted (AUG-2004) to the
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Proc. Natl. Acad. Sci. U.
          PRELIMINARY;
                              (TrEMBLrel.
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SMART; SM00110; C1Q;
PROSITE; PS01113; C1(
SEQUENCE 643 AA;
                                                                                    (Mouse)
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12; Conserv
                                                                                                                  NCBI_TaxID=10090;
         Q68ED0;
Q68ED0;
25-OCT-2004 (Tr]
25-OCT-2004 (Tr]
25-OCT-2004 (Tr]
Col8a2 protein.
Name=Col8a2;
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O6P1C4;
O5-JUL-2004 (
O5-JUL-2004 (
O5-JUL-2004 (
Procollagen,
Name=Col8a2;
                                                                                  Mus musculus
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=C57BL/6; TISSUE=Brain;
STRAIN=C57BL/6; TISSUE=Brain;
STRAIN=C57BL/6; TISSUE=Brain;
A Strausberg R.L., Feingold E.A., Grouse b.H., Derge J.G.,
Strausberg R.L., Zeeberg B., Wagner L., Shenmen C.M., Schuler G.D.
A Altschul S.F., Zeeberg B., Buetow K.H., Schefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.
Nillalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.,
I"Generation and initial analysis of more than 15,000 full-length B. C., And A. C., Marian C. C., Marian C. C., Marian C., Mari
                                                                                                                                                                                                                                                                                                                                                                                                   Sanchez
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; El
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorl
NCBI_TaxID=8022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S.;
type I
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annotation updat
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MEDLINE=21257802; PubMed=11358497;
Saito M., Takenouchi Y., Kunisaki N., Kimura S.
"Complete primary structure of rainbow trout to consisting of al(I)a2(I)a3(I) heterotrimers.";
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7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     transport;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
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Collagen; 8.
)7; COMPLEMNTC10.
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TNF_like.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                42.2%;
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19,
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Q910B9;
01-DEC-2001 (TrEMBLrel. 1
01-DEC-2001 (TrEMBLrel. 1
01-MAR-2004 (TrEMBLrel. 2
Collagen a3(I).
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PR00007; CUM
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Submitted (JAN-2004)
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Eukaryota;
Mammalia; E
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Collagen;
SIGNAL
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BOVIN
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P SEQUENCE FROM N.A.

MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

A Strausberg R.L., Seberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Brownstein M.J., Usdin T.B., Peters G.J., Abramson R.D., Mullahy S.J.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Raha S., Worley K.C., Shevchenko Y., Bouffard G.G.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Whiting M., Touchman J.W., Green E.D., Dickson M.C.,

Blakesley R.W., Touchman J.W., Schwutz J., Myers R.M.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T.E.,
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                                                                                                                                                                                                                                                                                                                                 (Rel. 40, Created)
(Rel. 40, Last sequence update)
(Rel. 44, Last annotation update)
recursor (Collagen/fibrinogen domain-containing protein
(Ficolin A) (M-Ficolin).
                                            IEA
                                                                                                                                                                                                                                                                                                                                                                                                                   eostomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequences.";
ad. Sci. U.S.A. 99:16899-16903(2002).
Involved in serum exerting lectin activity: Binds
                                            constituent;
                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .8344;
ki K.,
                                                                                                                                                                                                                                                                                                                                                                                                                           Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  characterization of mouse ficolin-A." Commun. 244:796-800(1998).
                                                                                                                                                                                         Length 1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOI=10.1006/bbrc.1998.8 y., Miura Y., Yagasaki
                                                                                                                                                                                                                                                                                                                                                                                                                   Eutel
                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Sciurognathi; Muridae;
                                            structural IEA.
                                                                                                                                                                    AB1F9F3410A98650
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                                                                                                                                                                                         Score 62; DB 2;
Pred. No. 1.1e+02,
; Mismatches
lem. 268:2817-2827(2001).

6; BAB55662.1; -.

11; C:collagen; IEA.

7; C:cytoplasm; IEA.

11; F:extracellular matrix s.

7; P:phosphate transport; I.

7; Collagen; 18.

8; Collagen; 18.

1007; Clg_helix; 2.

1078; Fib_collagen_C; 1.
                                                                                                                                                                                      62;
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fujimori Y., Harumiya S., Fukumoto Y.,
Tachikawa H., Fujimoto D.;
"Molecular cloning and characterization
                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=BALB/c; TISSUE=Liver;
MEDLINE=98205801; PubMed=9535745;
                                                                                                                                                                                                                                                           629
                                                                                                                                                                     MM:
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                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
NCBI_TaxID=10090;
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                                                                                                                                   PS01208; VWFC 1;
PS50184; VWFC 2;
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is (Mouse).
                                                                                                                                                                                                                Conservative
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                                                                                                              S; COLFI;
                                                                                                                                                                                                                                                                                                                                                                      Ficolin 1 precursor (Ficolin-A) (Ficolin
                                                                                                                                                                     1458 AA;
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                                                                                                                                                                                                   Local Similarity
ses 12; Conser
                                                                                      PD000007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Biophys.
                                                                                                   PD002078;
Eur. J. Biochem.
EMBL; AB052836; EGO; GO:0005581; CGO; GO:0005737; CGO; GO:0005201; IGO; GO:0006817; I
                                                                                                              SM00038;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mouse cDNA
                                                                 Pfam; PF01410;
Pfam; PF01391;
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                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                      16-OCT-2001
16-OCT-2001
05-JUL-2004
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"Molecular
                                                                                                                                                                                                                                                                                                                   MOUSE
                                                                                                                                                                                                                                                                                                                                                                                             Name=Fcn1;
                                                                                                                                             PROSITE;
Collagen.
SEQUENCE
                                                                                                                                  PROSITE;
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                                                                                       Probom;
                                                                                                     ProDom;
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Best Loc
Matches
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its
                                                                                                                           th a collaboration EMBL outstation -
                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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chain
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 (By similarity). monocyte surface
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cora; Bovidae
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Potential)
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SUBUNIT: Homopolymer. Interacts with elastin (By similari SUBCELLULAR LOCATION: Secreted. Found on the monocyte sursimilarity).

TISSUE SPECIFICITY: Highly expressed in liver and spleen. SIMILARITY: Belongs to the ficolin lectin family. SIMILARITY: Contains 1 collagenous domain. SIMILARITY: Contains 1 fibrinogen C-terminal domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ., Henkel W., Wachter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ata; Vertebrata; Eutel; Ruminantia; Pecora;
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the alpha
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Tin; Multigene family; Represential.

Ficolin 1.

Collagen-like.

Fibrinogen C-terminal.

N-linked (GlCNAC. ..)
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40;
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Pred. No. ...
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Last annotation
chain.
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SEQUENCE OF 1-242.
MEDLINE=80026026;
Fietzek P.P., Allmann H., Rauterberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chordata; Crania
Cetartiodactyla;
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                                                                                                                                                                                                                                                           EMBL; AB007813; BAA25126.1; ...
EMBL; BC019180; AAH19180.1; ...
PIR; JC5980; JC5980.
HSSP; P02671; 1FZD.
MGD; MGI:1340905; Fcna.
InterPro; IPR008161; Clg helix.
InterPro; IPR008160; Collagen.
InterPro; IPR002181; Fibrinogen.
Pfam; PF01391; Collagen; 1.
Pfam; PF00147; Fibrinogen C; 1.
ProDom; PD000007; Clg helix; 1.
SMART; SM00186; FBG; 1.
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MEDLINE=80026027; PubMed=488907
Dewes H., Fietzek P.P., Kuhn K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Φ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acid sequence of the amino (positions 1-222).";
Hoppe-Seyler's Z. Physiol.
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12; Conservative
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20-MAR-1987 (Rel. 04, L
25-OCT-2004 (Rel. 45, L
Collagen alpha 1(III) c
Name=COL3A1;
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Eutheria;
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NCBI_TaxID=9913;
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GPQGPAGKNGETGPQGPPGPT
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Collagen.
SEQUENCE
   447
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EMBL; AF
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Matches
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076271
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QBMW55
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                                                                                             The amino
                                                                                                                                                  SEQUENCE OF 572-808.
MEDLINE=80026029; PubMed=488909;
Lang H., Glanville R.W., Fietzek P.P., Kuhn K.;
"The covalent structure of calf skin type III collagen. IV. The amino acid sequence of the cyanogen bromide peptide alpha 1(III)CB5 (positions 552-788).";
  collagen. II. The amino alpha 1(III)CB1,8,10,2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                are
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                                                                                                                                                                                                                                                                                            amino
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              chains
                                                                                                                                                                                                                                                                                                                                                  MEDLINE=80026031; PubMed=488911;
Allmann H., Fietzek P.P., Glanville R.W., Kuhn K.;
Interpolation of the carboxyterminal cyanogen bromide peptide alportions of the carboxyterminal cyanogen bromide peptide alportions of Physiol. Chem. 360:861-868(1979).
Hoppe-Seyler's Z. Physiol. Chem. 360:861-868(1979).
Hoppe-Seyler's Z. Physiol. Chem. 360:861-868(1979).
Hoppe-Seyler's Z. Physiol. Chem. 360:861-868(1979).

-!- FUNCTION: Collagen type II occurs in most soft connective tialong with type I collagen.

-!- SUBUNIT: Trimers of identical alpha 1(III) chains. Trimers a also cross-linked via hydroxylysines.

-!- PTM: Prolines at the third position of the tripeptide repeatiunit (G-X-Y) are hydroxylated in some or all of the chains.

-!- SIMILARITY: Belongs to the fibrillar collagen family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             The chain . Trimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 809-947.
MEDLINE=80026030; PubMed=488910;
Dewes H., Fietzek P.P., Kuhn K.;
"The covalent structure of calf skin type III collagen. V. The acid sequence of the cyanogen bromide peptide alpha 1(III)CB9A (position 789-927).";
Hoppe-Seyler's Z. Physiol. Chem. 360:851-860(1979).
                                                                                                                                                                                                                                                                                                                                                                                                                                         connective
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chains
                                                       SEQUENCE OF 423-571.
MEDLINE=80026028; PubMed=488908;
Bentz H., Fietzek P.P., Kuhn K.;
"The covalent structure of calf skin type III collagen. III. 1 acid sequence of the cyanogen bromide peptide alpha 1(III)CB4 (positions 403-551).";
Hoppe-Seyler's Z. Physiol. Chem. 360:833-840(1979).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1049;
                                   Physiol. Chem. 360:821-832(1979)
                                                                                                                                                                                                                              Physiol. Chem. 360:841-850(1979)
                                                                                                                                                                                                                                                                                                                      .";
Physiol. Chem. 360:851-860(1979)
  type III
peptide
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Pred. No. 1.3e+02
; Mismatches
structure of calf skin type of the cyanogen bromide pept 3-402).";
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erPro; IPR008161; Clg helix.
erPro; IPR008160; Collagen.
erPro; IPR001007; VWF C.
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 acid sequence of the (positions 223-402). Hoppe-Seyler's Z. Ph)
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Gaps

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Indels

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Conservative

Similarity 12; Conser

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Pteriomorphia; Mytiloida;
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                                                                                                                                              PubMed=9724735; DOI=10.1073/pnas.95.18.1051
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MEDLINE=22038007; PubMed=12042339;
Lucas J.M., Vaccaro E., Waite J.H.;
"A molecular, morphometric and mechanical comparison "A molecular, morphometric and mechanical elements of byssus from Mytilus edulis and Mytilus
                                                                                                                                                                     copolymer
                                                 update)
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Last annotation update)
                                                                                                                                                                                           95:10517-10522 (1998)
                                    update)
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tes 9;
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Pred. No. 1.3e
3; Mismatches
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No. 1.
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ca; Bivalvia; I
                                                                                    Bivalvia;
                                                                                                                                                                              mussel byssal threads.";
Proc. Natl. Acad. Sci. U.S.A. 95:10517-
EMBL; AF043944; AAC33847.1; -.
GO; GO:0005737; C:cytoplasm; IEA.
GO; GO:006817; P:phosphate transport;
InterPro; IPR008161; Clg helix.
InterPro; IPR008160; Collagen.
                                                                                                                                                                                                                                                                                                                                        No.
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Pred.
   PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      galloprovincialis.";
J. Exp. Biol. 205:1807-1817(2002)
                                      Last
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Eukaryota; Metazoa; Mollusca; E
Mytiloidea; Mytilidae; Mytilus.
NCBI_TaxID=29158;
                                                                Mytilus edulis (Blue mussel).
Eukaryota; Metazoa; Mollusca; Mytiloidea; Mytilidae; Mytilus NCBI_TaxID=6550;
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ilarity 50.0%;
Conservative
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    PRELIMINARY;
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                        (TrEMBLrel.
                                               (TrEMBLrel.
                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=98393676; Publ
Qin X.X., Waite J.H.;
"A potential mediator
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Local Similarity
thes 13; Conserv
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13; Conser
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076271
076271;
01-NOV-1998
01-NOV-1998
01-OCT-2003
Nongradient
Mytilus edul
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01-OCT-2002
01-OCT-2002
01-JUN-2003
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Best Local S
Matches 13
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Collagen.
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1447 AA;
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SEQUENCE FROM
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Q6U1J5;
Q5-JUL-2004
05-JUL-2004
05-JUL-2004
Chihuahua.
                                                                                                              and mouse cl
Proc. Natl.
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Craniata; Vertebrata; Euteleostomi;
Teleostei; Ostariophysi; Cypriniformes;
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                                                                                                                                                                                                                               type II collagen gene . dysplasia congenita.
                                                                                                                                          Euteleostomi;
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MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz
                                                                                                                                                                                                                                                                                                                                                                                                     4;
                                                                                                                                                                                                                              collagen
                                                                                                                               Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                            Gruber H.E., Rimoin
                                                                                                                                                                                                                                                                                                                                                                                   70;
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                                                                                            Last sequence update)
Last annotation update)
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Last sequence update)
Last annotation update)
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MEDLINE=95150028; PubMed=7847372;

Tiller G.E., Weis M.A., Polumbo P.A., Gruber H.1

Cohn D.H., Eyre D.R.;

"An RNA-splicing mutation (G+5IVS20) in the type (COL2A1) in a family with spondyloepiphyseal dylam. J. Hum. Genet. 56:388-395(1995).

EMBL; U15195; AAB60370.1; -.

EMBL; U15195; AAB60370.1; -.

GO; GO:0005737; C:cytoplasm; IEA.

GO; GO:0006817; P:phosphate transport; IEA.

InterPro; IPR008160; Collagen.

Pfam; PF01391; Collagen; 1.
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                                                                                                                                                                                                                                                                                                                                                                                    Score 59;
Pred. No.
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                   256
 26
                                                                                   Created)
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                  232 GPRGPAGPPGDQGHGGPPG-PPGHSP
 GMQGPAGSGWEEGSGSPPGVTPLFSP
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Eukaryota; Metazoa; Chordata;
Actinopterygii; Neopterygii;
Cyprinidae; Danio.
NCBI_TaxID=7955;
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27,
27,
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6482 MW;
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larity 46.7%;
Conservative
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70 AA;
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O6P4U1;
O5-JUL-2004 (TrE
O5-JUL-2004 (TrE
O5-JUL-2004 (TrE
Collal protein:
Name=collal;
                                                                                                               Alpha-1 type
Name=COL2A1;
                                                                                  01-NOV-1996
01-NOV-1996
01-MAR-2004
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full-length human
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S. Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human degeneration and initial analysis of more than 15,000 full-length human degeneration.
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Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IEA
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.; Cypriniforme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   structural constituent;
IEA.
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Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cyprinidae; Danio.
NCBI TaxID=7955;
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Pred. No. 2.4e+02
; Mismatches 1:
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Strausberg R.;
Strausberg R.;
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Strausberg R.;
Strausberg R.;
Submitted (DEC-2003) to the EMBL/GenBank/EMBL; BC063249; AAH63249.1; -.
ZFIN; ZDB-GENE-030131-9102; colla1.
GO; GO:0005581; C:collagen; IEA.
GO; GO:0005201; F:extracellular matrix st
GO; GO:0006817; P:phosphate transport; IE
InterPro; IPR008160; Collagen.
InterPro; IPR008160; Collagen.
InterPro; IPR009041; PMP_SGCI.
InterPro; IPR001007; VWF_C.
Pfam; PF01410; CollFI; 1.
Pfam; PF014391; Collagen; 17.
Pfam; PF01093; VWC; 1.
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ProDom; PD002078; Fib_collagen_
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                                                                                                                                                                                                                                                                                          cDNA sequences."; .. Acad. Sci. U.S.A.
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11 Similarity 46.2%;
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8; PS01208; VWFC 1;
8; PS50184; VWFC 2;
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O95LJ6;
O1-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Hypothetical protein.
Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
NCBI TaxID=9541;
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Pred. No. 24;
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TISSUE=Testis;
Osada N., Hida M., Kusuda J., Tanuma R., H
Terao K., Sugano S., Hashimoto K.;
"Cynomolgus monkey testicular cDNAs for di
in the human genome sequence.";
BMC Genomics 3:36-36(2002).
EMBL; AB072792; BAB69761.1; -.
Hypothetical protein.
SEQUENCE 135 AA; 14280 MW; 398CC2768FF
GO; GO:0005581; C:collagen; IEA.
GO; GO:0005737; C:cytoplasm; IEA.
GO; GO:0005201; F:extracellular matrix st
GO; GO:0006817; P:phosphate transport; IE.
InterPro; IPR008160; Collagen.
InterPro; IPR009041; PMP_SGCI.
InterPro; IPR001007; VWF_C.
Pfam; PF01410; COLFI; 1.
Pfam; PF01391; Collagen; 16.
Pfam; PF01093; VWC; 1.
ProDom; PD002078; Fib_collagen_C; 1.
SMART; SM00214; VWC; 1.
PROSITE; PS01208; VWFC_1; 1.
PROSITE; PS01208; VWFC_1; 1.
Collagen.
SEQUENCE 1447 AA; 137144 MW; 9CABD561;
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-09-980-263 Title: Perfect s Sequence:

26 GMOGPAGSGWEEGSGSPPGVTPLFSP US-(147 1 G score

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residues 74649064 seds, 513545 Searched

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SUMMARIES

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	Description	equence 27, App	ence 11, App	ence 23, App	ence 3, Appl	ence 13, App	e 4, Appl	equence 4, Appl	ance 1, Appl	equence 2, Appl	equence 59, App	equence 71, App	Sequence 60, Appl	equence 61, App	Sequence 73, Appl	equence 72, App	equence 9, Appl	e 18, App	equence 18, App	9451,	Appl	equence 19, App	equence 19, App	, App		equence 10, App	Д	
SUMMAKIES	QI	12-08-370-15	70-15	US-08-990-065-23	US-08-975-084-3	US-09-380-532-13	-370-15	US-08-814-095-4	US-08-975-084-1	US-08-975-084-2	-972=03	42-255-7	Ġ	-972-032-6	US-08-642-255-73	US-08-642-255-72	-494-16	3-586-1	US-09-823-038A-18		ŧ	US-08-963-825-19	US-09-500-811-19	-570-573-1	US-09-548-608-19	-887-1	89-578-1	US-09-949-016-5882
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Sequence 12, Appl Sequence 12, Appl Sequence 17843, A Sequence 26219, A Sequence 9, Appli Sequence 68, Appl Sequence 68, Appl Sequence 69, Appl Sequence 69, Appl Sequence 69, Appl Sequence 69, Appl Sequence 20694, A Sequence 20694, A Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli	, App
US-08-316-650-12 PCT-US95-02251-12 US-09-252-991A-17843 US-09-252-991A-26219 US-09-961-403-9 US-09-961-403-9 US-09-961-403-9 US-09-528-784A-68 US-09-569-098A-68 US-09-569-098A-69 US-09-528-784A-69 US-09-528-784A-69 US-09-528-784A-69 US-09-528-784A-69 US-09-528-784A-69 US-09-528-784A-69 US-09-528-784A-69 US-09-528-784A-69 US-09-252-991A-20694 US-09-252-991A-20694 US-08-931-820-4 US-08-931-820-4 US-08-931-820-4	US-08-845-258-47
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ALIGNMENTS

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TRANSGENIC ANIMAL ASSAY SYSTEM FOR
ANTICHOLINESTERASE SUBSTANCES
27
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                                                        (mo21) bly.
                                                                                                                                                                                                                           Reising, Ethington, Barnard
). Box 4390
                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Ve

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/370,156

FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Kohn, Kenneth I.
REGISTRATION NUMBER: 30,955
REFERENCE/DOCKET NUMBER: P-307 (M
TELECOMMUNICATION INFORMATION:
TELEPHONE: (810) 689-3500
TELEFAX: (810) 689-4071
INFORMATION FOR SEQ ID NO: 27:
SEQUENCE CHARACTERISTICS:
LENGTH: 26 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/08/370,156
    RESULT 1
US-08-370-156-27
; Sequence 27, Application US/08370156
; Patent No. 5932780
; GENERAL INFORMATION:
                                                                                    Soreq, Hermona Zakut, Haim Shani, Moshe
                                                                                       APPLICANT: Soreq, Hermon APPLICANT: Sakut, Haim APPLICANT: Shani, Moshe TITLE OF INVENTION: TRAN TITLE OF INVENTION: ANTI NUMBER OF SEQUENCES: 27 CORRESPONDENCE ADDRESS: ADDRESSE: Reising, Et STREET: P.O. Box 4390 CITY: Troy STATE: Michigan COUNTRY: US
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; MOLECULE TYPE:
US-08-370-156-27
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RESULT
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Length 26; ; DB 2; 7.7e-11; les 0; Score 147; Pred. No. 7. ; Mismatches 100.0%; Similarity 100 26; Conservative Query Match Best Local S Matches 26

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Gaps

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: 30500 No. 6258780thwestern Hwy.,
Farminton Hills
Michigan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 147; D
Pred. No. 9.2
; Mismatches
                                                                                                           CLASSIFICATION: 514

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/850,347

FILING DATE: 02-MAY-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/318,826

FILING DATE: 01-JAN-1994

ATTORNEY/AGENT INFORMATION:
NAME: Montgomery, Ilene N.
REGISTRATION NUMBER: 38,972

REFERENCE/DOCKET NUMBER: 2391.00086

TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (248) 539-5050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Montgomery, Ilene N.
REGISTRATION NUMBER: 38,972
REFERENCE/DOCKET NUMBER: 2391.00082
TELECOMMUNICATION INFORMATION:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/990,06
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Patent No. 6258780
GENERAL INFORMATION:
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SEIDMAN, Shlomo
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                    TELEFAX: (248) 539-5055
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 31 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Kohn & AB
STREET: 30500 No. 62
                                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: FRIEDMAN, APPLICANT: SEIDMAN, APPLICANT: KAUFER, DATILE OF INVENTION: PITLE OF INVENTION: PITLE OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
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                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
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STATE: M
COUNTRY:
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Best Local S
Matches 26
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APPLICANT: Seidman, Shlomo
APPLICANT: Seidman, Fritz
APPLICANT: Eckstein, Fritz
APPLICANT: Friedman, Alon
APPLICANT: Friedman, Alon
APPLICANT: Kaufer, Daniela
TITLE OF INVENTION: SYNTHETIC ANTISENSE
TITLE OF INVENTION: CONTAINING THEM
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
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9.2e-11
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STREET: 30500 No. 6121046thwestern Hwy.
CITY: Farmington Hills
STATE: Michigan
COUNTRY: U.S.
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Pred. No. 9.
; Mismatches
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/370,156
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICALLON: 536
FILING DATE:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Kohn, Kenneth I.
REGISTRATION NUMBER: 30,955
REFERENCE/DOCKET NUMBER: P-307 ()
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-08-370-156-11
; Sequence 11, Application US/08370156
; Patent No. 5932780
; GENERAL INFORMATION:
; APPLICANT: Soreq, Hermona
APPLICANT: Shani, Moshe
; TITLE OF INVENTION: TRANSGENIC ANI
; TITLE OF INVENTION: ANTICHOLINESTE
                                                                                                                                                                                               ADDRESSEE: Reising, Ethington, B
STREET: P.O. Box 4390
CITY: Troy
STATE: Michigan
COUNTRY: US
ZIP: 48099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 23, Application US/0899006
Patent No. 6121046
GENERAL INFORMATION:
APPLICANT: Soreq, Hermona
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (810) 689-3500
(810) 689-4071
OR SEQ ID NO:
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TELEFAX: (810) cc.
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 31 amino acids
TYPE: amino acid
STRANDEDNESS: single
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26; Conservative
                                                                                                                                                                    NUMBER OF SEQUENCES: 2'
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Length

DB 3; .2e-11;

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SEE: KOHN & ASSOCIATES
: 30500 No. 6025183thwestern Highway,
Farmington Hills
Michigan
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). Box 4390
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Mismatche
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Pred. No. 1
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ANTICHOLINESTERASE
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                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
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Patent No. 6025183;
GENERAL INFORMATION:
APPLICANT: Soreq, Hermona
APPLICANT: Zakut, Haim
APPLICANT: Shani, Moshe
TITLE OF INVENTION: TRANSGENIC A
                                                                                               Sequence 4, Application US/08370156
Patent No. 5932780
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Kohn, Kenneth I.
REGISTRATION NUMBER: 30,955
REFERENCE/DOCKET NUMBER: P-30
TELECOMMUNICATION INFORMATION:
TELEPHONE: (810) 689-3500
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SEQ ID NO:
                                                                                                                                         APPLICANT: Soreq, Hermor
APPLICANT: Zakut, Haim
APPLICANT: Shani, Moshe
TITLE OF INVENTION: TRAN
TITLE OF INVENTION: ANTI
NUMBER OF SEQUENCES: 27
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA APPLICATION NUMBER: UK
                                                                                                                                                                     Moshe
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MEDIUM TYPE: Floppy (
COMPUTER: IBM PC comp
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CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                  Michigan
: US
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26; Conser
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CITY: Fa
STATE: N
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-08-370-156-4
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Esther
METHODS AND COMPOSITIONS FOR THE
TREATMENT OF INJURY TO THE CENTRAL NERVOUS
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                                                                                                                                                                                   DB 3;
).2e-11;
ss 0;
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STREET: 30500 No. 6475998thwestern Hwy
CITY: Farmington Hills
STATE: Michigan
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100.0%; Pred. No. 9.2e-11
ive 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/380,532
FILING DATE: 12-No. 6475998-1999
CLASSIFICATION: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Montgomery, Ilene N.
REGISTRATION NUMBER: 38,972
REFERENCE/DOCKET NUMBER: 2391.00089
TELECOMMUNICATION INFORMATION:
TELEPHONE: (248) 539-5050
TELEFAX: (248) 539-5055
                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/380,532
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                                                                                                                                                                                   Score 147;
Pred. No.
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DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                           PLFSP
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US-09-380-532-13
; Sequence 13, Application US/09380532
; Patent No. 6475998
; GENERAL INFORMATION:
; APPLICANT: Soreq, Hermona
Seidman, Shlomo
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TOPOLOGY: not relevant
ULE TYPE: peptide
HETICAL: NO
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Seidman, Shlomo
Shohami, Esther
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SEQUENCE CHARACTERISTICS:
LENGTH: 31 amino aci
TELEPHONE: (248) 539-5050
TELEFAX: (248) 539-5055
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
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CORRESPONDENCE ADDRESS
ADDRESSEE: Kohn &
                                                        acids
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                                                                                                          peptide
NO
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linear
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srkandedness: sir-
TOPOLOGY: 1:
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SEQUENCE DESCI
-09-380-532-13
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ASSAY SYST
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                                                                                                           Length 600;
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4.8e-10;
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: 30500 No. 6258780thwestern Hwy.,
Farminton Hills
Michigan
                                                                                                             Score 147; D
Pred. No. 1.8
; Mismatches
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Vers:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/975,084
FILING DATE: 11-NOV-1997
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Montgomery, Ilene N.
REGISTRATION NUMBER: 38,972
REGISTRATION NUMBER: 2391.00082
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                         Sequence 2, Application US/08975084 Patent No. 6258780 GENERAL INFORMATION:
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PASSAGE T
                                                                                                                                                                                                                                                                                                                                   SOREO, Hermos SOREO, Hermos SEIDMAN, Shlomos Inter, Daniela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (248) 539-5050
TELEFAX: (248) 539-5055
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 25 amino acids
                                                                                                           th 100.0%; Similarity 100.0%; 26; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95.2%;
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                   protein
NO
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ADDRESSEE: Kohn & ABI
STREET: 30500 No. 62
 single
                                                                                                                                                                                                                                                                                                                                        APPLICANT: SOREO, Her
APPLICANT: SEIDMAN, S
APPLICANT: SEIDMAN, S
APPLICANT: KAUFER, DS
TITLE OF INVENTION: F
TITLE OF SEQUENCES:
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25; Conser
                              TYPE:
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                              MOLECULE TYPE HYPOTHETICAL:
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-08-975-084-2
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                                                                ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
US-07-972-032-59
                                                                                                                                                                                                                                                             SULT 9
-08-975-084-2
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                 TOPOLOGY
                                                                              US-08-975-084-1
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Best Local S
Matches 25
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STATE:
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Best Loc
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'OGS-975-084-1

'Sequence 1, Application US/08975084

'APPLICANT: STREDMAN, Alon

APPLICANT: STREDMAN, Alon

APPLICANT: STREDMAN, Shlomo

APPLICANT: STREDMAN, Shlomo

APPLICANT: ANOTEN: Daniela

TITLE OF INVENTION: A METHOD AND COMPOSITION FOR ENABLING

TITLE OF INVENTION: A METHOD AND COMPOSITION FOR ENABLING

TITLE OF INVENTION: A METHOD AND COMPOSITION FOR ENABLING

TITLE OF INVENTION: A METHOD HALD

COUNTRY: Parminton Hills

STREET: 30500 NO. 6258780thwestern Hwy., Suite 410

CITY: A8334

COUNTRY: US

STREET: Michigan

COUNTRY: US

STREET: Michigan

COUNTRY: US

STREET: HEN PC COMPACION

MEDIUM TYPE: Floppy disk

COMPUTER: IEM PC COMPACION

MEDIUM TYPE: Floppy disk

COMPUTER: IEM PC COMPACION

MEDIUM TYPE: Parmin S14

ATTORNEY/AGENT INPORMATION:

APPLICATION NUMBER: US/08/975,084

FILING DATE: 11-NOV-1997

CLASSIFICATION NUMBER: 2391.00082

FELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELEPHONE: (248) 539-5055
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                                                                                                                                                                                                                                                                                                                                                                                                            Length 600;
                                                                                 Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                             ; DB 3;
1.8e-09;
nes 0;
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                                                                                                                                                                                                                                                                                                                                                                                                             Score 147;
Pred. No.
                                                                                                                                           CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: Montgomery, Ilene N.
REGISTRATION NUMBER: 38,972
REFERENCE/DOCKET NUMBER: 2391.00066
TELECOMMUNICATION INFORMATION:
TELEPHONE: (248) 539-5050
ZIP: 48334
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/814,095
FILING DATE:
                                                                                                              US/08/814,095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
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Best Local Similarity 100.0%;
Matches 26; Conservative
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SEQUENCE CHARACTERISTICS:
LENGTH: 600 aming
                                                                                                                                                                                                                                                                                                             LENGTH: 600 amino acids
TYPE: amino acid
TOPOLOGY: linear
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amino acid
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 600 amino acid
                                                                                                                                                                                                                                                                                                                                                               protein
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US-07-972-032-60
; Sequence 60, Application US/07972032
; Patent No. 5496712
; GENERAL INFORMATION:
; APPLICANT: Cappello, Joseph
APPLICANT: Ferrari, Franco A.
; TITLE OF INVENTION: HIGH MOLECULAR WEIGHT CO.
; TITLE OF INVENTION: PROTEIN POLYMERS
; NUMBER OF SEQUENCES: 85
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bertram I. Rowland
; STREET: 4 Embarcadero Center, Suite 3400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Version
                                                                                                                                                                                                                                                                                                                                                                    Score 60; DB
Pred. No. 2.2;
0; Mismatches
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/972,032
FILING DATE: 19921105
CLASSIFICATION: 435
                                                                    ATTORNEY/AGENT INFORMATION:
NAME: ROWLAND, Bertram I.
REGISTRATION NUMBER: 20,015
REFERENCE/DOCKET NUMBER: A55556-3,
TELECOMMUNICATION INFORMATION:
TELEFAX: (415) 494-8701
TELEFAX: (415) 494-8771
INFORMATION FOR SEQ ID NO: 71:
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   DATA:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/791,
FILING DATE: 12-NOV-1991
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57.9%;
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NAME: Rowland, Bertram I
REGISTRATION NUMBER: 20,
REFERENCE/DOCKET NUMBER:
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FOR SEQ ID NO:
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4 Embarcadero (
San Francisco
California
                                                                                                                                                                                                                                              LENGTH: 54 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acids
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                                                                                                                                                                                                                                                                                                                  peptide
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ZIP: CA 94111
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
       CURRENT APPLICATION DAY
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION: 435
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TELEPHONE: (415
TELEFAX: (415)
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OLECULE TYPE:
642-255-71
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TYPE:
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STATE: Cal
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Best Local S
Matches 11
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Sequence 59, Application US/07972032

Patent No. 5496712

GENERAL INFORMATION:
APPLICANT: Cappello, Joseph
APPLICANT: Ferrari, Franco A.
TITLE OF INVENTION: HIGH MOLECULAR WEIGHT COLLAGEN-LIKE
TITLE OF INVENTION: PROTEIN POLYMERS
NUMBER OF SEQUENCES: 85
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bertram I. Rowland
STREET: 4 Embarcadero Center, Suite 3400
CITY: San Francisco
STATE: California
COUNTRY: USA
ZIP: CA 94111
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R: A-55556-1/BIR;PROP-08
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4 Embarcadero Center, Suite 3400
San Francisco
California
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US-08-642-255-71
i Sequence 71, Application US/08642255
; Patent No. 5773249
; GENERAL INFORMATION:
; APPLICANT: CAPPELLO, Joseph
APPLICANT: FERRARI, Franco A.
TITLE OF INVENTION: High Molecular Weight Co
TITLE OF INVENTION: Protein Polymers
; TITLE OF SEQUENCES: 135
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: FLEHR, HOHBACH, TEST, ALBRITTON
; ADDRESSEE: FLEHR, HOHBACH. Suite 3400
                                                                                                                                                                                                                                                                                                                                     Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Version
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 60;
Pred. No.
                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/972,032
FILING DATE: 19921105
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/791,960
FILING DATE: 12-NOV-1991
ATTORNEY/AGENT INFORMATION:
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ZIP: 94111-4187
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Rowland, Bertram I.

REGISTRATION NUMBER: 20,015
REFERENCE/DOCKET NUMBER: A-55
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 781-1989
TELEFAX: (415) 398-3249
INFORMATION FOR SEQ ID NO: 59:
SEQUENCE CHARACTERISTICS:
LENGTH: 54 amino acids
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ilarity 57.9%;
Conservative
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MEDIUM TYPE: Floppy
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AMINO ACID
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Best Local Similarity
Matches 11; Conser
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OLECULE TYPE:
972-032-59
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CITY: San
STATE: Cal
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US-08-642-255-73
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STATE: C
COUNTRY:
ZIP: 941
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                                        61-6
                                                                                                                                                                                                                                     Sequence 61, Application US/07972032
Patent No. 5496712
GENERAL INFORMATION:
APPLICANT: Cappello, Joseph
APPLICANT: Ferrari, Franco A.
TITLE OF INVENTION: HIGH MOLECULAR WEIGHT COLLAGEN-LIKE
TITLE OF INVENTION: PROTEIN POLYMERS
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                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: CA 94111
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/972,032
FILING DATE: 19921105
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/791,960
FILING DATE: 12-NOV-1991
ATTORNEY/AGENT INFORMATION:
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Pred. No. 3.8;
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Pred.
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3an Francisco
California
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REGISTRATION NUMBER: 20,015
REFERENCE/DOCKET NUMBER: A-TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 781-1989
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; OTHER INFORMATION: /lab;
; OTHER INFORMATION: /note;
; OTHER INFORMATION: 4."
US-07-972-032-61
NAME/KEY: Duplication
LOCATION: 34..69
OTHER INFORMATION: /lak
OTHER INFORMATION: /not
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CORRESPONDENCE ADDRESS:
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CITY: San
STATE: Cal
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US-08-642-255-72
; Sequence 72, Application US/08642255
; Patent No. 5773249
; GENERAL INFORMATION:
; APPLICANT: CAPPELLO, Joseph
; APPLICANT: FERRARI, Franco A.
; TITLE OF INVENTION: High Molecular Weight Collagen-Like
; TITLE OF INVENTION: Protein Polymers
; TITLE OF INVENTION: 135
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Suite 3400
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US-08-642-255-73

Sequence 73, Application US/08642255

Patent No. 5773249

GENERAL INFORMATION:

APPLICANT: CAPPELLO, Joseph
APPLICANT: FERRARI, Franco A.

TITLE OF INVENTION: High Molecular Weight Co
TITLE OF INVENTION: Protein Polymers

TITLE OF SEQUENCES: 135

CORRESPONDENCE ADDRESS:

ADDRESSEE: FLEHR, HOHBACH, TEST, ALBRITTON
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                                                                                                                                                                                                                                                                                                      IBM PC compatible SYSTEM: PC-DOS/MS
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NAME: ROWLAND, Bertram I.
REGISTRATION NUMBER: 20,015
REFERENCE/DOCKET NUMBER: A5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 494-8700
TELEFAX: (415) 494-8771
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10 277299 FHT UR
OR SEQ ID NO: 73
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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amino acid
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 94111-4187
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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California
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STRANDEDNESS: BL
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SOFTWARE: Patent
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Best Local Similarity
Matches 11; Conser
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CLASSIFICATION:
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Length 1065;
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/642,255
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: ROWLAND, BERTEAM I.
REGISTRATION NUMBER: 20,015
REGISTRATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: (415) 494-870
TELEFAX: (415) 494-870
TELEFAX: (415) 494-877
TELEX: 910 277299 FHT UR
TINFORMATION FOR SEQ ID NO: 72:
SEQUENCE CHARACTERISTICS:
LENGTH: 1065 amino acide
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-642-255-72
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Pred. No. 44;
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Best Local Similarity 57.9%;
Matches 11; Conservative
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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Result No.	Ō	Query Match	Length	DB	ID	Description
 		100.0	26	10	US-09-998-042	Sequence 1, Ap
(7)	147	0	37	10	US-09-998-042-6	Sequence 6, Appli
m		00	53	10	US-09-998-042-7	Sequence 7, Appli
4		46.	105	16	US-10-425-115-356384	equence 35638
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ָס	9	0	334	18	US-10-820-155-133	133,
10	9	0	528	16	US-10-425-115-250621	Sequence 250621,
11	9	0	534	15	US-10-425-114-70635	Sequence 70635, A

Sequence 4, Appli Sequence 6, Appli Sequence 6, Appli Sequence 194897, Sequence 250617, Sequence 250618, Sequence 271420, Sequence 271420, Sequence 271420, Sequence 271420, Sequence 2497, Ap Sequence 2497, Appl Sequence 34, Appl Sequence 34, Appl Sequence 2518, Appl Sequence 2518, Appl Sequence 2518, Appl Sequence 2518, Appl Sequence 2518, Appl Sequence 2518, Appl Sequence 42, Appli Sequence 42, Appli Sequence 42, Appli Sequence 42, Appli	equence 2, Applequence 2, Applequence 40, Applequence 18, Applequence 207493, equence 257391, equence 55894, quence 979, App
US-10-402-089-4 US-10-402-089-6 US-10-402-072A-4 US-10-402-072A-6 US-10-422-115-250617 US-10-425-115-250617 US-10-767-701-60190 US-10-767-701-60190 US-10-767-701-60190 US-10-767-701-60190 US-10-767-701-60190 US-10-767-115-250618 US-10-756-149-4761 US-10-756-149-4761 US-10-425-115-271420 US-10-425-115-271420 US-10-756-149-4761 US-10-104-047-2316 US-10-094-749-2518 US-10-094-749-2518 US-10-094-749-2518 US-10-094-749-2518 US-10-094-749-2518 US-10-094-749-4	S-10-219-449- S-10-958-858- -09-823-038A- S-10-425-115- S-10-425-115- S-10-425-115- -09-925-299-9
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ALIGNMENTS

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Sequence 6, Application US/09998042
Publication No. US20030036632A1
GENERAL INFORMATION:
APPLICANT: YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW
TITLE OF INVENTION: ACETYLCHOLINESTERASE-DERIVED PEPTIDE AND USES THEREOF
                                                                                               THEREOF
                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                          APPLICANT: YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW TITLE OF INVENTION: ACETYLCHOLINESTERASE-DERIVED PEPTIDE AND USES FILE REFERENCE: 7811/WO/99 CURRENT APPLICATION NUMBER: US/09/998,042 CURRENT FILING DATE: 2002-07-02 NUMBER OF SEQ ID NOS: 9 SOFTWARE: Patentin Ver. 2.1
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           US-09-998-042-1
; Sequence 1, Application US/09998042
; Publication No. US20030036632A1
; GENERAL INFORMATION:
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Similarity 100.0%;
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  ; FEATURE:
; OTHER INFORMATION:
US-10-425-115-356384
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US-10-425-115-274774
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US-09-998-042-7
; Sequence 7, Application US/0998042
; Publication No. US20030036632A1
; GENERAL INFORMATION:
        APPLICANT: YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW
        TITLE OF INVENTION: ACETYLCHOLINESTERASE-DERIVED PEPTIDE AND USES THEI
; FILE REFERENCE: 7811/WO/99
; CURRENT APPLICATION NUMBER: US/09/998,042
; CURRENT FILING DATE: 2002-07-02
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 7
; LENGTH: 53
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APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules an
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 356384
LENGTH: 105
                                                                                                                                                                                      Mismatches
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                                                                                                                                                         Score 147;
Pred. No.
FILE REFERENCE: 7811/WO/99
CURRENT APPLICATION NUMBER: US/09/998,042
CURRENT FILING DATE: 2002-07-02
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 6
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US-10-425-115-356384
; Sequence 356384, Application US/1042511;
; Publication No. US20040214272A1
; GENERAL INFORMATION:
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Conservative 0
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TYPE: PRT
ORGANISM: Artificial Sequence
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OTHER INFORMATION: unsure
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                                                                                  LENGTH: 37
TYPE: PRT
ORGANISM: homo sapiens
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26; Conserv
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nes 26; Conser
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ORGANISM: Zea mays
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NAME/KEY: unsure
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US-09-998-042-6
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US-10-276-774-1845

Sequence 1845, Application US/10276774

Sequence 1845, Application US/10276774

Publication No. US20040053245A1

GENERAL INFORMATION:

APPLICANT: Tang, Y, Tom et al

TITLE OF INVENTION: No. US20040053245A1el Nucleic Acids and Polypeptides

FILE REFERENCE: 21272-030

CURRENT APPLICATION NUMBER: US/10/276,774

CURRENT APPLICATION NUMBER: 09/560,875

PRIOR FILING DATE: 2000-02-03

NUMBER OF SEQ ID NOS: 2700

SOFTWARE: Custom

SEQ ID NO 1845

LINGTH: 575
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MRT4577_88191C.1.pep
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APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Ot:
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 274774
LENGTH: 157
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                                                                         Mismatch
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No .
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Sequence 274774, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:
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Similarity 61.1%;
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-10-425-115-250621
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ORGANISM: Zea r
FEATURE:
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LENGTH: 334
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Pred. No. 78;
1; Mismatches
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Pred. No. 26;
2; Mismatches
                                        Score 61.5; D
Pred. No. 88;
2; Mismatches
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APPLICANT: Weilguny, Dietmar
APPLICANT: Jensenius, Jens Christian
APPLICANT: Kongerslev, Leif
APPLICANT: Matthiesen, Finn
TITLE OF INVENTION: Treatment of SARS in inc
FILE REFERENCE: P 774 US00
CURRENT APPLICATION NUMBER: US/10/820,155
CURRENT FILING DATE: 2004-04-08
  amino acid or
                                                                                                                                                                      US-10-425-115-221226
; Sequence 221226, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Plants
; TITLE OF INVENTION: Plants
; FILE REFERENCE: 38-21(5322)B
; CURRENT APPLICATION NUMBER: US/10/425,115
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 221226
; LENGTH: 138
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5. US20050137126A1
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Best Local Similarity 60.0%;
Matches 12; Conservative
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Best Local Similarity 56.5%;
Matches 13; Conservative
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NUMBER OF SEQ ID NOS: 137
SOFTWARE: PatentIn version
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Best Local Similarity 52.4
Matches 11; Conservative
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; OTHER INFORMATION: Xaa
US-10-276-774-1845
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LOCATION: (1)..(
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LENGTH: 334
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ORGANISM:
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APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT APPLICATION NUMBER: US/10/425,115
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 250621
LENGTH: 528
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                                                                                                                                             TITLE OF INVENTION: Treatment of SARS in FILE REFERENCE: P 774 US00 CURRENT APPLICATION NUMBER: US/10/820,155 CURRENT FILING DATE: 2004-04-08 NUMBER OF SEQ ID NOS: 137 SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                           Score 60;
Pred. No.
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Sequence 250621, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:
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US-10-425-114-70635
; Sequence 70635, Application US/10425114
; Publication No. US20040034888A1
                                                             Weilguny, Dietmar
Jensenius, Jens Christian
Kongerslev, Leif
Matthiesen, Finn
Application US/10820155 . US20050137126A1
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-10-402-089-6
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SOFTWARE: Pate
SEQ ID NO 6
LENGTH: 1466
TYPE: PRT
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-10-402-072A-6
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; ORGANISM: BO
US-10-402-072A-4
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US-10-402-089-6
; Sequence 6, Application US/10402089
; Publication No. US20040005663A1
; GENERAL INFORMATION:
; APPLICANT: Bell, Marcum P.
; APPLICANT: Neff, Thomas B.
; APPLICANT: Polarek, James W.
; APPLICANT: Seeley, Todd W.
; TITLE OF INVENTION: PORCINE COLLAGENS AND GELATINS
; FILE REFERENCE: FP0402.3 CON
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/10402089
; Publication No. US20040005663A1
; GENERAL INFORMATION:
; APPLICANT: Bell, Marcum P.
APPLICANT: Neff, Thomas B.
APPLICANT: Polarek, James W.
APPLICANT: Seeley, Todd W.
TITLE OF INVENTION: PORCINE COLLAGENS AND GELATINS
FILE REFERENCE: FP0402.3 CON
CURRENT APPLICATION NUMBER: US/10/402,089
; CURRENT FILING DATE: 2003-03-26
; PRIOR APPLICATION NUMBER: US 09/709,700
; PRIOR FILING DATE: 2000-11-10
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                                                                                                                                                                                                                                                                                                       Mismatches 10
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ed. No. 3.1e+02;
Mismatches 9
                               APPLICANT: Kovalic, David ...
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules a
TITLE OF INVENTION: Plants and Uses Thereof
FILE REFERENCE: 38-21 (53313) B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 70635
LENGTH: 534
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Pred. No.
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ilarity 57.1%;
Conservative
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              : Liu, Jingdong
: Zhou, Yihua
: Kovalic, David K.
: Screen, Steven E
                                                                                                                                                                                                                                                                                                      th 40.8%;
Similarity 50.0%;
14; Conservative
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SOFTWARE: PatentIn version
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Matches 12; Conser
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ORGANISM: Zea mays
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PRT
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GENERAL INFC
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APPLICANT:
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publication No. US20040018592A1

GENERAL INFORMATION:
APPLICANT: Bell, Marcum P.
APPLICANT: Neff, Thomas B.
APPLICANT: Polarek, James W.
APPLICANT: Seeley, Todd W.
TITLE OF INVENTION: BOVINE COLLAGENS AND GELATINS
FILE REFERENCE: FP0402.2 CON
CURRENT APPLICATION NUMBER: US/10/402,072A

CURRENT FILING DATE: 2003-03-26
PRIOR APPLICATION NUMBER: US 09/709,700
PRIOR FILING DATE: 2000-11-10
NUMBER OF SEQ ID NOS: 72

SOFTWARE: Patentin version 3.2
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Sequence 6, Application US/10402072A;
publication No. US20040018592A1;
GENERAL INFORMATION:
APPLICANT: Bell, Marcum P.
APPLICANT: Neff, Thomas B.
APPLICANT: Polarek, James W.
APPLICANT: Seeley, Todd W.
TITLE OF INVENTION: BOVINE COLLAGENS AND GELATINS;
FILE REFERENCE: FP0402.2 CON
CURRENT APPLICATION NUMBER: US/10/402,072A;
CURRENT FILING DATE: 2003-26
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ed. No. 3.1e+02;
Mismatches 9
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ed. No. 3.1e+02;
Mismatches 9
CURRENT APPLICATION NUMBER: US/10/402,089
CURRENT FILING DATE: 2003-03-26
PRIOR APPLICATION NUMBER: US 09/709,700
PRIOR FILING DATE: 2000-11-10
NUMBER OF SEQ ID NOS: 72
SOFTWARE: Patentin version 3.2
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Pred. No.
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Pred. No.
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57.1%;
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PRIOR APPLICATION NUMBER: US (
PRIOR FILING DATE: 2000-11-10
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; ORGANISM: Sus scrofa US-10-402-072A-6

Gарв ; 0 Length 1466; Query Match
Best Local Similarity 57.1%; Pred. No. 3.1e+02;
Matches 12; Conservative 0; Mismatches 9;

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Search completed: October 29, 2005, 01:18:08 Job time : 166 secs